# Clinical Memoranda

## Hydrocephalus Associated with Anaemia: Recovery

The following case is in my opinion of sufficient interest and rarity to merit notice.

In August, 1933, I was shown a male child, aged 16 months, with enlargement of the head, convulsions, and impairment of vision. He had been normal at birth, and maintained fairly good health till 1 year of age, when he began to lose his appetite, became peevish, and was generally constipated. Later on he grew sluggish, and lost all interest in his toys and surroundings. It was then noticed that the head was becoming bigger and out of proportion to the rest of the body. These symptoms gradually intensified, and were followed by convulsions and loss of vision. It was at this stage that the child came under my observation. There was nothing of importance in the family history. The parents were healthy. The patient was the third and youngest child; the eldest was alive and healthy, but the second had died from infantile diarrhoea at the age of 6 months. My patient had been breast-fed throughout, and was still mainly on mother's milk.

On physical examination the head was found definitely enlarged; both fontanelles were patent, the anterior measuring 5 by 4 cm. Examination of the optic disks revealed the presence of papilloedema with atrophy of the nasal halves. The pupils were dilated, and reacted very sluggishly to light. The deep reflexes were brisk, and the plantar reflex was of the extensor type. The child had frequent attacks of localized convulsions in the upper limbs; occasionally they became generalized, and were accompanied by loss of consciousness. There was no other abnormality in the nervous system or in any other system, except that the child looked very anaemic. Blood examination in the pathology department of King George's Medical College revealed the following picture: total red blood cells, 900,000 per c.mm.; total white blood cells, 12,640 per c.mm.; haemoglobin, 10 per cent. The blood film showed poikilocytes, microcytes, and a few normoblasts. The Wassermann reaction was completely negative.

Since nothing could be done for the hydrocephalic condition the child was mainly treated for anaemia on the following lines. He was put on cow's milk, fruit juices, fresh liver juice, an iron and copper mixture, and just enough white mixture to keep the bowels well open. The anaemia responded quickly, and the child began to improve in general health. To my great surprise the improvement in the blood condition was soon followed by amelioration and gradual disappearance of the hydrocephalic symptoms. The convulsions were lessened, and completely ceased in about two months' time. The vision gradually returned, and a year later, when the red blood cell count had increased to three and a half millions with 50 per cent. haemoglobin, the child looked almost normal. The head had assumed more or less normal proportions; the posterior fontanelle had closed, and the anterior, though still open, was much smaller.

The child is now aged 3; he has learnt to walk, and is able to speak a few words. He looks normal in all respects, except that he has been set back by about a year in his general development.

### COMMENT

The chief interest in this case of acquired hydrocephalus lay in the unexpected recovery which immediately followed the successful treatment of the anaemic condition. This naturally suggested that the hydrocephalus might have been secondary to the anaemia, from which the child began to suffer at about the age of 1 year, and which was quite severe when the symptoms of hydrocephalus made their appearance. It is not yet settled whether the cerebro-spinal fluid is formed as a result of simple "filtration" or "secretion" at the choroid plexuses. If the first view is accepted, it seems feasible that a highly hydraemic condition of the blood—as is present in severe anaemias—might easily lead to an increased production of cerebro-spinal fluid and hydrocephalus. The wonder is that one does not see such cases more often. In fact, such an association must be very rare indeed, for anaemia is not mentioned in the medical textbooks as a cause of secondary hydrocephalus, nor could I trace any other similar case in the literature available at Lucknow. The exact cause of the anaemia remained obscure, but most probably it was of the type of the nutritional anaemias of infancy.

B. B. BHATIA, M.D., M.R.C.P.
King George's Medical College,
Lucknow.

## Epilepsy Major Complicating Rheumatoid Arthritis Cured by Appendicectomy

A young lady, a typist aged 28, consulted me for rheumatoid arthritis about two years ago. There was marked deformity of her fingers, wrists, and elbows, and even grosser deformity of her feet and ankles, with a typical pes planus. There was marked limitation of movements at the affected joints, especially at those of the ankles and feet. She complained of severe pains all over her body, but much more marked in the affected joints. I learnt that her complaint began seven years ago, following a chill which she contracted. She also suffered soon afterwards from mild epileptic attacks. Her attention was centred, however, upon the joint pains, which were very distressing to her, and which prevented her from working.

### FOCAL SEPSIS

A careful examination was made in the hope of finding and eradicating any focus of infection that might have been responsible for the rheumatic infection. Her tonsils were markedly infected, and these were accordingly removed in April, 1934. Meantime she was having general anti-rheumatic treatment, which eased her pains somewhat, and considerably improved the swelling and deformity of her joints.

On the night of November 7th, 1934, I was called in to see her. She was then suffering from very severe epileptic convulsions. Her mother told me that she had had numerous attacks during the day, which had become increasingly severe, and of a longer duration, towards evening.

I remained with her for some time, and on examination found that she was suffering from an acute pain in the right iliac fossa. There was also extreme tenderness and rigidity in that region. The pains were spasmodic in character, and each spasm was followed by an epileptic attack with convulsions typical of the successive tonic, clonic, and coma stages. There was also loss of sphincter control and unconsciousness.

### OPERATION

I had the patient removed to a nursing home that night, and her appendix was removed the following morning.

The appendix was surrounded by a dense mass of adhesions, which involved the neighbouring structures. The appendix itself was greatly dilated, and contained in its lumen an inspissated mass of organic faecal matter and a quantity of muco-purulent fluid.

The patient has since made a speedy and remarkable recovery. Elbows, wrists, fingers, ankles, and feet are practically normal, with just a little residual swelling of a few of the interphalangeal joints. She has had no recurrence of the attacks of epilepsy since her appendicectomy, and is now able to live a normally happy life, dancing and enjoying outdoor games. I saw her quite recently, and she is now seeking employment as a typist again, after being incapacited for seven years.

Belfast. E. OLIVER BLAKE, M.B., B.CH., B.A.O.